

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
20 January 2005 (20.01.2005)

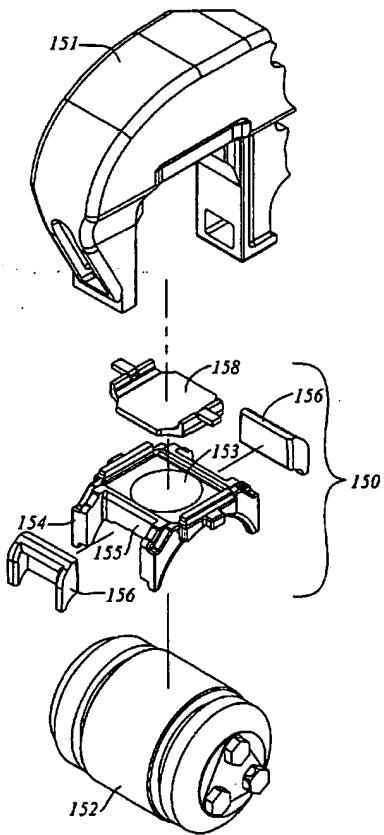
PCT

(10) International Publication Number  
**WO 2005/005219 A2**

(51) International Patent Classification <sup>7</sup> :	B61F	(72) Inventors; and
(21) International Application Number:	PCT/CA2004/000995	(75) Inventors/Applicants ( <i>for US only</i> ): FORBES, James, Wilfred [CA/CA]; 15 Glenron Road, R.R. #2, Campbellville, Ontario L0P 1B0 (CA). HEMATIAN, Jamal [CA/CA]; 1272 Ontario Street, Suite 203, Burlington, Ontario L7S 2L8 (CA).
(22) International Filing Date:	8 July 2004 (08.07.2004)	
(25) Filing Language:	English	(74) Agents: BOUSFIELD, Kenneth, L. et al.; McCarthy Tétrault, 66 Wellington Street West, Suite 4700, P.O. Box 48, Toronto Dominion Bank Tower, Toronto, Ontario M5K 1E6 (CA).
(26) Publication Language:	English	
(30) Priority Data:		(81) Designated States ( <i>unless otherwise indicated, for every kind of national protection available</i> ): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
(71) Applicant ( <i>for all designated States except US</i> ): NATIONAL STEEL CAR LIMITED [CA/CA]; P.O. Box 2450, 600 Kenilworth Avenue North, Hamilton, Ontario L8N 3J4 (CA).		

[Continued on next page]

(54) Title: RAIL ROAD CAR TRUCK AND MEMBERS THEREOF



(57) Abstract: A rail road freight car truck has a truck bolster and a pair of side frames, the truck bolster being mounted transversely relative to the side frames. The mounting interface between the ends of the axles and the sideframe pedestals allows lateral rocking motion of the sideframes in the manner of a swing motion truck. The lateral swinging motion is combined with a longitudinal self steering capability. The self steering capability may be obtained by use of a longitudinally oriented rocker that may tend to permit resistance to deflection that is proportional to the weight carried across the interface. The truck may have auxiliary centering elements mounted in the pedestal seats, and those auxiliary centering elements may be made of resilient elastomeric material. The truck may also have friction dampers that have a disinclination to stick-slip behaviour. The friction dampers may be provided with brake linings, or similar features, on the face engaging the sideframe columns, on the slope face, or both. The friction dampers may operate to yield upward and downward friction forces that are not overly unequal. The friction dampers may be mounted in a four-cornered arrangement at each end of the truck bolster. The spring groups may include sub-groups of springs of different heights.

WO 2005/005219 A2



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

(84) **Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.